

Exhibit C



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Mr. Alex Chan
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Re: Ocean Semiconductor's infringement contentions in *Ocean Semiconductor LLC v. STMicroelectronics, Inc.*, No. 6:20-cv-1215 (W.D. Tex.)

Dear Mr. Chan,

I received Ocean's September 8, 2021 response letter to ST Inc.'s August 11, 2021 letter regarding the numerous deficiencies in Ocean's Infringement Contentions served on July 2, 2021. Rather than withdrawing its deficient allegations or taking steps to remedy them, Ocean has done nothing. Ocean appears to maintain that its Infringement Contentions are adequate. ST Inc. does not agree. For the reasons described in ST Inc.'s August 11, 2021 letter, as supplemented below in light of Ocean's September 8, 2021 response letter, Ocean's contentions remain defective. Accordingly, Ocean should withdraw the deficient infringement allegations described in ST Inc.'s August 11, 2021 letter on or before November 5, 2021.

'651 patent

Ocean's response confirms the fundamental flaws in its infringement theory for the '651 patent.

As a threshold matter, Ocean's September 8, 2021 response letter does not dispute that Ocean has failed to identify a single TWINSCAN tool (or more generally, any single tool) that allegedly performs *each* claimed step of the asserted claims. Rather, Ocean's response letter incorrectly asserts that Ocean is not required to do so. In this regard, Ocean's citation to *SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d 1319 (Fed. Cir. 2010) is inapposite. Here, unlike in *SiRF*, there can be no dispute that the claims require each step to occur in the same tool, and, more particularly, e.g., using the *same* wafer stage. Thus, it is illogical to mix and match disparate tools (and stages) to allege infringement.

Turning to the particular claim limitations identified in ST Inc.'s August 11, 2021 letter:

- Process chamber (all asserted claims): Ocean's response letter addresses only claims 31-32 and 34-37 and ignores all other claims. As to claims 31-32 and 34-37, and

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Ocean's new allegation that "said process chamber" should be rewritten to "said process tool," even if correct (it is not), Ocean's Infringement Contentions still fail to specify what the alleged "process tool" is. For the remaining claims, as ST Inc. has explained, Ocean's contentions fail to specify what the alleged "process chamber" is.

- Pneumatic cylinders (claims 19-24, 75, 81): There can be no credible debate that electromagnetic actuators (such as the accused Lorentz actuators) are *not* pneumatic cylinders. Indeed, Ocean's infringement theory improperly attempts to read *both* "pneumatic" and "cylinder" out of the claims.
- Deposition/etching chambers/processes (claims 20, 23, 32, 34, 80): Ocean's response letter effectively strikes out claim limitations, asserting that "nothing in claim 20 requires that the deposition or etching chamber be embedded or integrated with the same system or machine as the one that performs the method of claim 19." That is wrong. The plain language of claim 20 limits the "process chamber" of claim 19 (in which the claimed method is performed) to a deposition or etching chamber. There is no written description support for Ocean's contrary position. Further, despite Ocean's protests, it is well understood that deposition and etching are different from lithography.
- Ball and socket connections (claim 24): Ocean's response letter fails to recognize that (i) claim 24 is a dependent claim, (ii) the claimed "adjusting" in claim 24 refers back to the "adjusting" in claim 19 (i.e., raising, lowering, or tilting caused by actuating at least one of the claimed pneumatic cylinders), and (iii) the claimed ball and socket connections must operatively couple the wafer stage to these pneumatic cylinders (which, according to Ocean, are Lorentz actuators). Ocean's quotation from the Position Control article in its response letter references a "linear *motor*"—but, as Ocean appears to recognize, a linear motor is not the alleged "pneumatic cylinder."
- Wafer positioning after stage adjustment (claims 21, 73, 78): Ocean's response letter asserts that stage "readjustment ... necessarily includes raising, lowering, or tilting ... due to, in one example, the different height maps between the various wafers (e.g., between preceding and subsequent wafers to be processed) as well as the 6DOF alignment performed during the exposure, as explained in the Position Control article." But the Position Control article does not support the proposition that the stage is raised, lowered, or tilted without a wafer on the stage.
- Wafer positioning and processing after stage adjustment based on measured across-wafer variations (claims 31, 32, 34–37): Ocean's response letter ignores the plain language of the claims, which dictates an order of operation. As is apparent from the claims—including the antecedent basis of the various claim limitations—each step

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must be performed in order. Ocean does not appear to contest that its contentions fail under this reading. Moreover, there is no evidence that the claimed steps are performed by any single TWINSCAN tool, that the claims are broad enough to cover two entirely separate tools, or that, even if tools are used together, the claimed steps are performed.

'330 patent

Ocean's September 8, 2021 response letter fails to address the key deficiency in its infringement contentions: Ocean has not tied its contentions to the process actually used to manufacture the accused devices. The fact that the Yieldstar tool may be theoretically capable of performing certain claim limitations—which ST Inc. does not concede—does not mean that the Yieldstar tool is actually used in an infringing way. The key analysis under Section 271(g) is whether the accused devices are “*made by* a process patented in the United States,” not whether they could be. 35 U.S.C. § 271(g) (emphasis added).

Ocean's response regarding the '330 patent inappropriately tries to shift the burden of demonstrating infringement to ST Inc. Ocean's Infringement Contentions fail to show that any fabrication facility uses any specific model of the Yieldstar tool to make the accused devices. And instead of providing contentions about the specific model of the Yieldstar tool that Ocean contends is used to manufacture the accused devices in an infringing manner, Ocean provides snippets of information about several different models of the Yieldstar tool. In its response, Ocean contends (without proof) that all models of the Yieldstar tool function in the same manner and invites ST Inc. to provide evidence to the contrary. But Ocean bears the burden of proving infringement and justifying its decision to address several different Yieldstar tools in the same infringement chart.

Similarly, Ocean's Infringement Contentions do not point to a “grating structure” formed on a portion of a wafer used to make the accused devices. The grating structure Ocean identifies in its contentions does not correspond to the accused devices but is merely a wafer used for “experiments.” Overlay Study at 4. It is irrelevant whether a grating structure could be formed and measured on a wafer manufactured for experimental purposes. The question is whether a grating structure meeting the claim limitations is formed on the accused devices themselves. Ocean's contentions provide no evidence to support this assertion and, for at least the reasons explained above, do not suggest, much less demonstrate, that the accused devices were made by the patented process.

'402 patent

Ocean misses the point with respect to the '402 patent. Indeed, Ocean's September 8, 2021 response letter is dedicated to arguing that ST Inc. bears a burden to explain “*why* Ocean's cited

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evidence” (emphasis in original) does not establish infringement. There are two problems with this approach: (1) it is Ocean’s burden to prove infringement (not ST Inc.’s burden to disprove it) and (2) ST Inc. explained the reasons why Ocean’s evidence is deficient.

As described by ST Inc., Ocean failed to specify what builds, or versions, of the identified software systems are accused. Likewise, ST Inc. reiterates that Ocean fails to explain how the cited materials provide evidence regarding how the accused third-party software actually works.

Moreover, Ocean mixes disclosures from a hodge-podge of references, including textbooks, research papers, and a variety of different documents describing various software allegedly supplied by third-party vendors, including Applied Materials and PDF Solutions. For example, Ocean’s claim 1 analysis on PDF Solutions’ Exensio system hinges in part on a graphic titled “What is the Exensio Platform.” That graphic, however, does not include evidence that ties the system to the entire claim. For other claim elements, Ocean turns to a different paper—*Method for fast and accurate calibration of litho simulator for hot spot analysis*. But crucially, Ocean seems to admit that it has no knowledge of whether this paper describes the actual operation of the Exensio system. Instead, Ocean vaguely assumes that the paper indicates that “PDF disclosed ‘two alternative methods for calibrating [] litho models’” because one of the three authors was affiliated with PDF Solutions at the time of publication. There is no showing that the affiliated author ever worked on the Exensio system, nor is there any showing that this cherry-picked paper has any relevance to how Exensio operates. As a result, even under the best interpretation of the cited evidence, Ocean has no basis for its patchwork infringement read.

Not only does Ocean mix disclosures from potentially irrelevant materials, but it also never ties a particular system to any particular accused device. There is no attempt to show that any of the third-party software systems has been used in conjunction with any single ST Inc. accused product.

As things currently stand, there is no credible basis for Ocean’s infringement case relating to the ’402 patent.

’538 patent

Ocean’s September 8, 2021 response letter fails to address the key deficiency in its Infringement Contentions relating to the ’538 patent: Ocean has not tied its contentions to the process used to manufacture the accused devices. Even if the E3, Exensio, or LineWorks system may be theoretically capable of performing certain claim limitations—which ST Inc. does not concede—Ocean has not shown that any of those systems is used in an infringing way. Ocean states that its charts demonstrate that the accused products are manufactured by “performing in said computer the fault detection analysis relating to processing of a subsequent workpiece using said adjusted weighting”; however, the charts provide no showing that any accused product was manufactured

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using any software system implementing that step. The key analysis under Section 271(g) is whether the accused devices are “***made by*** a process patented in the United States,” not whether they could be. 35 U.S.C. § 271(g) (emphasis added). Ocean’s allegations fall short.

Ocean also asserts it has provided ST Inc. with sufficient notice to obtain the discovery that it speculates might provide a cognizable infringement theory. But that is not enough—Ocean bears the burden on the issue of infringement, which includes conveying a fully supported infringement theory in its Infringement Contentions. Ocean cannot shift its burden to ST Inc. by invoking fact discovery. Ocean is only entitled to discovery if it can first present a colorable infringement theory in its contentions, which it has failed to do. *E.g., Tech. Props. Ltd. LLC v. Samsung Elecs. Co., Ltd.*, 114 F. Supp. 3d 842, 851-52 (N.D. Cal. 2015) (denying motion to compel discovery where infringement contentions were plainly deficient).

Ocean further argues that “references cited in the [Infringement Contentions] are in fact directed to the same software.” Ocean has not shown that to be the case. The same software requires the same version and the same run parameters. Instead, as explained in ST Inc.’s August 11, 2021 letter, Ocean’s contentions mix and match various disclosures from different public references, patents, and press releases relating to third-party software without providing any indication that the separate and distinct references all relate to, and describe, the same software. When using various disclosures from different public references, patents, and press releases to describe an infringement theory, a patent holder must show that those disclosures describe the same version of the software and therefore relate to the operation of the same system. Ocean has not done so.

’691 patent

Regarding the ’691 patent, Ocean identifies only vague descriptions regarding capabilities of accused systems. Those vague descriptions alone are insufficient to demonstrate infringement of the asserted claims of the ’691 patent, and Ocean fails to identify any system that was configured to use the identified capabilities in the manufacturing of the accused devices, even assuming Ocean’s vague descriptions satisfy the claim limitations. Further, Ocean must present evidence that ST Inc. infringes each claim limitation, as opposed to mere indications of some possibility that ST Inc. (or its suppliers or foundries) could choose to use certain software in hypothetical configurations. *See, e.g., ConnecTel, LLC v. Cisco Sys., Inc.*, 391 F. Supp. 2d 526, 527-28 (E.D. Tex. 2005) (“ConnecTel provides no explanation of how Cisco’s accused infringing products read on the asserted claim language.”). Compiling a list of potential features in an infringement chart is not the same thing as demonstrating infringement of claim limitations with evidence. Ocean does not provide the latter, leaving its contentions fatally defective. ST Inc. addresses a few specific examples of deficiencies below.

Regarding limitation 1(a), Ocean points to text stating that the E3 system can “relate [out-of-norm conditions] to problem[s] with tools” and relies on the plural form of “tools” to satisfy the

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“plurality of tools” limitation of claim 1 of the ’691 patent. However, the cited document does not state that metrology data is collected from a plurality of tools, but rather that collected metrology data *may* be used in the analysis of a plurality of tools, which is not evidence of what is claimed. Further, Ocean fails to show that any system used to manufacture the accused devices has been configured for such collection of metrology data from a plurality of tools. Ocean offers no evidence that the E3 system as installed at a site manufacturing the accused devices includes the claimed configuration.

Ocean misses the mark on the issues ST Inc. identifies for limitation 1(c) regarding “filtering.” Filtering of the metrology data involves modification of metrology data, such as by removing certain data using the collection purpose data as a guide. ’691 patent, 6:32-35. Ocean cites no evidence indicating any modification of metrology data. Regarding the description that sensors “are known to impact yield,” Ocean does not connect this determination to any filtering of metrology data; instead, it simply asserts that the claimed “filtering” is included in this processing. Likewise, the Infringement Contentions do not demonstrate how ranking of sensor data, identification of root causes in fault detection, or “supervised” and “unsupervised” models involve “filtering.” Ocean’s September 8, 2021 response letter relies on “Figure 1: Virtual metrology utilized,” but that figure never refers to “filtering.” Ocean alleges that the diagram “expressly shows how filtering is performed,” and yet the word “filtering” never appears in the figure. Ocean argues that “metrology data can be filtered using the ‘VM model’” but provides no evidence of how the VM model works or how it performs any filtering, relying instead on what the VM model could theoretically do. Ocean asserts that ST Inc.’s complaints are “conclusory,” but it is Ocean that fails to provide any evidence of “filtering” beyond its say-so.

Regarding limitation 1(c) and the Exensio system, Ocean alleges that “the Exensio platform uses semantic modeling to filter the metrology data” and cites to a document stating that “Semantic models allow for automatically cleaning, aligning, and interpreting data.” Again, identifying mere capabilities of a system says nothing about whether such capabilities were used during the manufacture of any accused device. Further, there is no evidence regarding how the accused “semantic models” perform any processing, let alone “filtering” specifically. Ocean’s other theory regarding “filtering” for Exensio centers on generic “Multiple algorithms” and “Machine Learning” operations. Like the semantic model referenced above, there is no evidence regarding how these algorithms and operations perform any processing, much less filtering.

Regarding limitation 1(d), Ocean relies on evidence that is insufficient to show the configuration of the accused E3 system allegedly used during the manufacture of the accused devices. Instead, Ocean identifies only generic functionality that the E3 system may be configured to perform. Limitation 1(d) recites “conducting a process control activity.” But the information in Ocean’s Infringement Contentions does not specify any purported “process control activity” that changes the operation of a tool. Rather, the generic support concerns, for example, “detect and diagnose” functions. The information cited in Ocean’s response letter describes “determin[ing] whether to

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downgrade or scrap,” “identif[ying] invisible defects,” “optimiz[ing] system performance,” and “allow[ing for] quick actions.” None of that is sufficiently linked to any process control activity.

Ocean’s allegations regarding camLine’s LineWorks system are deficient for many of the same reasons described above for the E3 and Exensio systems. For example, as explained in ST Inc.’s August 11, 2021 letter, Ocean does not provide evidence of the claimed “filtering.” Ocean’s response letter does nothing to remedy the omission. In fact, Ocean does not even attempt to identify evidence from its Infringement Contentions that relates to the claimed “filtering.” Without such evidence, Ocean cannot properly allege infringement. As another example, Ocean’s response letter identifies alleged evidence relating to the claimed “process control activity” “based on filtered metrology data” without explaining how the alleged evidence relates to “filtered metrology data.” That is because the cited material does not describe “filtered metrology data.” Ocean’s threadbare allegations do not provide a defensible infringement theory.

’305 and ’248 patents

In its August 11, 2021 letter, ST Inc. pointed out Ocean’s failure to connect the materials cited in its Infringement Contentions for the ’305 and ’248 patents to any single process used to manufacture of the accused products, as required under Section 271(g). Ocean asserts it has provided ST Inc. with sufficient notice to obtain the discovery that it speculates might then provide a cognizable infringement theory.

But Ocean bears the burden on the issue of infringement, which includes conveying a fully supported infringement theory in its Infringement Contentions. Ocean’s assortment of generic references without any explanation as to how their disclosures fit together to describe a single manufacturing process falls far short of that standard. Ocean cannot shift its burden to ST Inc. by invoking fact discovery. Ocean has it backwards: it is only entitled to fact discovery if it can first present a colorable infringement theory in its contentions. *E.g., Tech. Props.*, 114 F. Supp. 3d at 851-52. Ocean has failed to do so here. Ocean’s reliance on the Knopp Thesis and the Smart Sampling Scheduling and Skipping Simulator article makes no difference. Even if some of the methods disclosed in those publications were used in ST Inc.’s actual manufacturing processes (which ST Inc. disputes), the references provide no indication of any single manufacturing process performed by ST Inc. or its foundries that purportedly infringes each and every limitation of the claims of the ’305 and ’248 patents.

’097 patent

In its August 11, 2021 letter, ST Inc. highlighted Ocean’s improper reliance on a patchwork of unrelated, generic references in its contentions relating to the ’097 patent. Ocean again claims it has provided sufficient notice to ST Inc. to justify fact discovery. Not so. Ocean has once more failed to notify ST Inc. of any cognizable infringement theory to serve as a defensible basis to

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merit fact discovery. *Tech. Props.*, 114 F. Supp. 3d at 851 (“Plaintiffs cannot wait for discovery before complying with their obligations ...; they must perform an analysis of information reasonably available to it [sic], and disclose what instrumentality in each individual accused product allegedly practices each limitation of every asserted claim.”). Ocean, not ST Inc., must identify and explain evidence sufficient to show that ST Inc. performs a single process that infringes each and every limitation of the claims of the ’097 patent to establish infringement under Section 271(g). Because there is no such explanation, Ocean’s Infringement Contentions remain inadequate.

Tellingly, in its response, Ocean does not deny that it has provided no evidence that ST Inc. performs the claimed isotropic etch step. Instead, Ocean asserts that it has sufficiently put ST Inc. on notice of its infringement theory, which should suffice. That is mistaken. Ocean must present evidence that ST Inc. infringes the limitation, not merely Ocean’s assertion that ST Inc. might infringe. *See, e.g., ConnecTel*, 391 F. Supp. 2d at 527-28. If it were otherwise, infringement contentions would not be required at all. A patent holder’s assertion of infringement alone would be sufficient to support a case. But notice of Ocean’s infringement theory is not the same as evidence of infringement. Ocean does not provide the latter, leaving its contentions fatally defective at least as to the required isotropic etch.

ST Inc. continues to reserve the right to seek relief from the court should Ocean fail to withdraw or other remedy its faulty Infringement Contentions on or before November 5, 2021.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tyler R. Bowen".

Tyler R. Bowen

TRB:cls